SHAPING THE NETWORK COMPETENCES OF YOUNG GIRLS FROM MINOR TOWNS AND RESTRUCTURED AREAS AS FUTURE BUSINESS LEADERS OPERATING IN A 4.0 ECONOMY

TEACHERS' TOOLKIT

ABOUT THE PROJECT

Teachers' digital competence and their beliefs regarding their ability to use information and communication technologies (ICT) are important for the successful integration of digital tools into educational practices. This confidence, often referred to as ICT self-efficacy, is a critical factor in the effective incorporation of technology into learning environments. Research by Rubach and Lazarides (2021) indicates a strong correlation between teachers' self-perceived competence in digital domains and their actual implementation of ICT in classroom activities. When teachers have this confidence, they are more likely to use digital tools in ways that enhance student engagement, personalised learning, and collaborative opportunities.

However, digital competence among educators is not solely shaped by training or professional expectations. As highlighted by Hatlevik et al. (2018), external and individual factors—such as prior experience with technology, opportunities for autonomous learning, and socioeconomic background—significantly influence variations in ICT self-efficacy. These same studies emphasise the importance of understanding gender dynamics and contextual variables, noting that these factors affect not only how teachers perceive their digital skills, but also how students develop their own competencies in computer and information literacy.

It is important to note that while ICT self-efficacy and digital literacy are related, they are distinct. A teacher may feel confident using technology (high self-efficacy) but may lack deeper digital competence, such as the ability to evaluate online information critically or to apply digital tools in pedagogically meaningful ways. Similarly, students may have surface-level technical skills without a comprehensive understanding of how to use technology ethically, creatively, or effectively for learning.

Given this context, fostering students ′digital literacy and skills cannot happen in isolation. It begins with ensuring that teachers themselves are digitally competent. Educators must possess a well-rounded understanding of the components of digital competence - including not only skills, but also knowledge, attitudes, and values. These competencies must be applicable across various domains of life and work: from the classroom to the workplace, and from personal communication to civic engagement.

Digital competence encompasses a broad spectrum of skills, from basic digital literacy to advanced abilities such as data analysis, cybersecurity awareness, and content creation. Within this framework, **network competence** refers specifically to the ability to build, manage, and leverage digital social and professional networks. These include skills in online communication, collaboration, self-presentation, and navigating digital communities and platforms.

We aim to provide educators with the theoretical foundations, practical strategies, and real-world examples necessary to support the development of digital and network competences in themselves and their students. It reflects a growing recognition that equipping educators with robust digital skills is key to preparing young people for success in an increasingly digital society.

BRIDGING THE DIGITAL DIVIDE: A PROJECT TO COUNTERACT SOCIO-DIGITAL EXCLUSION THROUGH NETWORK COMPETENCE DEVELOPMENT IN YOUNG WOMEN

While digital transformation brings new learning opportunities, it also deepens existing inequalities - particularly for girls from economically and socially vulnerable backgrounds. These girls often face limited access to digital infrastructure, including internet connectivity, devices, and safe learning environments. In many cases, social norms and cultural expectations also restrict girls ′autonomy, mobility, and exposure to technology compared to their male peers.

The digital divide is not merely a gap in access, but also in confidence, support, and opportunity. Girls from low-income families are less likely to attend schools with up-to-date digital tools, receive training in digital literacy, or participate in extracurricular programs involving STEM or entrepreneurship. These barriers compound over time, resulting in a lack of critical life and

learning skills, including problem-solving, information literacy, creative communication, and online safety awareness.

Furthermore, economic hardship often forces girls into early responsibilities—such as caregiving or household chores—that reduce their time for formal learning or digital exploration. When digital education is not accessible, inclusive, or gender-sensitive, it can reinforce patterns of educational exclusion and economic vulnerability.

Addressing these gaps is not only a matter of equity but of empowerment and social justice. Equipping girls with network and entrepreneurial skills enables them to better navigate a digital world, participate in civic life, access opportunities, and break the cycle of poverty. It empowers them to become creators of content and solutions, not just passive users of technology.

This toolkit includes practical strategies, project ideas, and activity templates specifically designed to help girls in disadvantaged settings develop network competences as a strategic means to prevent and counteract socio-digital exclusion.

TRAINING PERSPECTIVE: ADAPTATION, SUPPORT, AND GROWTH PATHWAYS

When working with girls from economically and socially disadvantaged communities, it is essential for trainers and educators to meet learners where they are. Many of these girls begin their digital journey with very low baseline abilities, often having limited exposure to formal ICT education, structured digital environments, or positive learning experiences. This does not indicate a lack of potential - it reflects systemic barriers, including poverty, gender bias, under-resourced schools, and social expectations that prioritise domestic responsibilities over education.

As a result, training methods and tasks must be carefully adapted to reflect the learners' real-life contexts, linguistic background, learning pace, and prior experience with technology. Overloading them with theory or advanced tools too early can be discouraging. Instead, training should begin with simple, relatable tasks that are immediately meaningful - such as using a phone to record a story, editing a photo, or researching a question on a search engine.

Key training strategies can include: i) Scaffolded learning (providing temporary support for an inexperienced learner to help them complete a task or acquire a skill, and then gradually withdrawing that support): Building gradually from digital knowledge to basic skills and eventually to applied competence. ii) Peer support & collaboration: Creating safe, inclusive learning environments where girls can teach and learn from each other. iii) Relevance to their lives: Framing tasks around real-world interests- such as hobbies, local businesses, family life, or social issues they care about. iv) Frequent affirmation: Encouraging participation, celebrating small wins, and reinforcing that learning digital skills is not a luxury, but a right and a future investment.

While it is important to start simple, training should not remain static. The ultimate goal is to encourage progression - from knowledge to skill, and from skill to competence. This means guiding learners beyond „how to use a tool" toward understanding why, when, and in what ways digital tools can help them communicate, advocate, solve problems, express themselves, and even earn a living.

True digital competence is about confidence, critical thinking, and autonomy. For a teenage girl in a low-income context, this may begin with uploading a TikTok video but can evolve into creating her own YouTube tutorial channel, launching a small business page on Instagram, or teaching her peers about online safety.

Training must be flexible and empowering - not just instructional. It should foster a growth mindset, emphasising that digital competence is developed over time, and that each learner's journey is valid. With the right structure, support, and motivation, even those who begin with very limited skills can blossom into confident, capable, and responsible digital citizens.

This toolkit offers adaptable tasks, project-based activities, and assessment methods that reflect these pedagogical principles, ensuring that learning is inclusive, empowering, and purpose-driven. It is designed to help trainers, educators, and facilitators create transformative learning experiences for girls who deserve not only access—but also agency—in the digital world.

TOOLKIT STRUCTURE

The Teachers' Toolkit consists of four parts. The first one *Digital and Network Competences as a Critical Pathway to Empowerment and Future Professional Success of Young Girls from Disadvantaged Areas*, explores the concept of digital and network competencies and analyses two prominent digital competency frameworks in the European Union, namely the European Digital Competence Framework for Citizens (DigComp) and the European Framework for the Digital Competence of Educators (DigCompEdu). Then, it shows the importance of digital competencies, and in particular the network competencies in the social and educational life of teenage girls, especially in the light of their future professional career.

The second part, *Methods and tools for online learning and collaboration. Work assessment*, investigates methods for collaborative learning to develop digital competencies of teenage girls and presents the most popular nowadays online tools for collaborative learning indicating how they can be implemented when working on students' projects. It also shows which methods can be adopted to effectively assess students' work within collaborative learning for digital competencies.

In the third and fourth section, *Tools and Ideas for Collaborative Online Work* and *Scenario Book* you will find tools, ideas and meeting scenarios that can be used while working on students' projects. The fifth part, the *Supplement*, includes sample lesson plans with recommended online tools.

All the materials have been developed according to the attached Project Implementation Model.

References

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